



STATE OF WASHINGTON

## STATE BUILDING CODE COUNCIL

### Washington State Energy Code Development Standard Energy Code Proposal Form

May 2018

Log No. 21-GP1-129 REVISED

Code being amended: ☒ Commercial Provisions ☐ Residential Provisions

Code Section # C401.1

Brief Description:

In the WSEC 2012 code cycle an exception was added to C403.1 to clearly delineate which mechanical code sections process loads were required to meet. At the time refrigeration and motor efficiency were regulated by C403 and were requirements excluded from the process load exception. So process loads were governed by these sections. Over time motors and refrigeration have migrated to other sections but the exception is still in C403.1. An exception in C403.1 has no meaning in other sections of the code.

To make code logically consistent, the content of the exception was moved to C401.2.2. This proposal intends to clarify the application to process loads. To my way of reading the code no change in the process loads governed by code is proposed.

Proposed code change text: (Copy the existing text from the Integrated Draft, linked above, and then use underline for new text and ~~strikeout~~ for text to be deleted.)

**C401.1 Scope.** The provisions in this chapter are applicable to commercial buildings and their building sites.

**C401.2 Application.** Commercial buildings shall comply with one of the following:

1. Prescriptive Compliance. The Prescriptive Compliance option requires compliance with Sections C402 through C406, and Sections C408, C409, C410 and C411.
2. Total Building Performance. The Total Building Performance option requires compliance with Section C407.
3. When adopted by the local jurisdiction, the requirements of Appendix F, Outcome-Based Energy Budget, Sections C408, C409, C410, C411 and any specific section in Table C407.2 as determined by the local jurisdiction. The Proposed Total UA of the proposed building shall be no more than 20 percent higher than the Allowed Total UA as defined in Section C402.1.5.

**C401.2.1 Application to existing buildings.** Additions, alterations, repairs and changes of occupancy to existing buildings shall comply with Chapter 5.

**C401.2.2 Application to process equipment.** Energy using equipment used by a manufacturing, industrial or commercial process other than for conditioning spaces or maintaining comfort and amenities for the occupants shall comply with C403.3.2, Tables C403.3.2(1) through (16) inclusive, C403.7.7, C403.9.2.1, C403.10.3, C403.11.2, and C403.11.3, C404.2, Table C404.2, C405.8, and C410.

**C403.1 General.** Mechanical systems and equipment serving heating, cooling, ventilating, and other needs shall comply with this section.

**Exceptions:**

1. Energy using equipment used by a manufacturing, industrial or commercial process other than for conditioning spaces or maintaining comfort and amenities for the occupants ~~and not otherwise regulated by are exempt from all C403 subsections except for C403.3.2, Tables C403.3.2(1) through (1216) inclusive, C403.7.7, C403.9.2.1, C403.10.3, C403.11.2, and C403.11.3, as applicable, C404.2, Table C404.2, C405.8, and C410.~~ Data center and computer room HVAC equipment is not covered by this exception.
2. *Data center systems* are exempt from Sections C403.4 and C403.5.

**C404.1 General.** This section covers the minimum efficiency of, and controls for, service water-heating equipment and insulation of service hot water piping.

**Exception:** Energy using equipment used by a manufacturing, industrial or commercial process other than maintaining comfort and amenities for the occupants are exempt from all C404 subsections except C404.2 and C404.13.

**C405.1 General.** Lighting system controls, the maximum lighting power for interior and exterior applications, electrical energy consumption, vertical and horizontal transportation systems, and minimum efficiencies for motors and transformers shall comply with this section.

*Sleeping units* shall comply with Section C405.2.6, item 2 and Section C405.1.1 or Section C405.4. *General lighting* shall consist of all lighting included when calculating the total connected interior lighting power in accordance with Section C405.4.1 and which does not require specific application controls in accordance with Section C405.2.5.

Lighting installed in *walk-in coolers, walk-in freezers, refrigerated warehouse coolers and refrigerated warehouse freezers* shall comply with the lighting requirements of Section C410.2.

Transformers, uninterruptable power supplies, motors and electrical power processing equipment in *data center systems* shall comply with Section 8 of ASHRAE Standard 90.4 in addition to this code.

**Exception:** Energy using equipment used by a manufacturing, industrial or commercial process other than maintaining comfort and amenities for the occupants are exempt from all C405 subsections except C405.8. . Data center and computer room HVAC equipment is not covered by this exception.

Purpose of code change:

Clarify code applicability to process equipment.

Your amendment must meet one of the following criteria. Select at least one:

- |  |  |
|--|--|
| <input type="checkbox"/> Addresses a critical life/safety need.  | <input checked="" type="checkbox"/> Consistency with state or federal regulations. |
| <input type="checkbox"/> The amendment clarifies the intent or application of the code.  | <input type="checkbox"/> Addresses a unique character of the state.                |
| <input checked="" type="checkbox"/> Addresses a specific state policy or statute.<br>(Note that energy conservation is a state policy) | <input type="checkbox"/> Corrects errors and omissions.                            |

Check the building types that would be impacted by your code change:



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## STATE BUILDING CODE COUNCIL

☐ Single family/duplex/townhome

☐ Multi-family 4 + stories

☒ Institutional

☐ Multi-family 1 – 3 stories

☒ Commercial / Retail

☒ Industrial

Your name            Mike Kennedy

Email address            mikekennedy@energysims.com

Your organization    Mike Kennedy, Inc

Phone number            3603010098

Other contact name [Click here to enter text.](#)

**Instructions:** Send this form as an email attachment, along with any other documentation available, to:  
[sbcc@des.wa.gov](mailto:sbcc@des.wa.gov). For further information, call the State Building Code Council at 360-407-9278.

## **Economic Impact Data Sheet**

Briefly summarize your proposal's primary economic impacts and benefits to building owners, tenants and businesses.

**This proposal is intended to clarify rather than change the code scope.**

Provide your best estimate of the construction cost (or cost savings) of your code change proposal? (See OFM Life Cycle Cost [Analysis tool](#) and [Instructions](#); use these [Inputs](#). **Webinars on the tool can be found [Here](#) and [Here](#)**)

\$0/square foot (For residential projects, also provide \$0/ dwelling unit)

Show calculations here, and list sources for costs/savings, or attach backup data pages

**No change in requirements, no calculations done.**

Provide your best estimate of the annual energy savings (or additional energy use) for your code change proposal?

**No change in requirements, no calculations done.**

Show calculations here, and list sources for energy savings estimates, or attach backup data pages

**No change in requirements, no calculations done.**

List any code enforcement time for additional plan review or inspections that your proposal will require, in hours per permit application:

No additional time.

**All questions must be answered to be considered complete. Incomplete proposals will not be accepted.**